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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/634,746	08/06/2003	Sung-Jin Park	45565	7861

1609 7590 04/17/2006

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EXAMINER

ALPHONSE, FRITZ

ART UNIT PAPER NUMBER

2133

DATE MAILED: 04/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/634,746

Applicant(s)

PARK ET AL.

Examiner

Fritz Alphonse

Art Unit

2133

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6-22 and 26-42 is/are allowed.
- 6) ☒ Claim(s) 1-6 and 23-25 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>1, 2, 3</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 112*

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-5, 23-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Particularly, as to claims 1 and 23, the variables “N” window, “W” symbols, “NW and 2NW” symbols or serial symbols, “N” second shift registers, are undefined in the claims. Appropriate correction is required.

In addition as to claims 1 and 23, the parameter “N” of “N-window mode... or N second shift registers” is indefinite and unclear in the claim.

### *Allowable Subject Matter*

3. Claims 6-14, 15-22, 26-34 and 35-42 are allowed.

The following is an examiner's statement of reasons for allowance:

Claims 6, 15, 26, 35 are indicated to contain allowable subject matter because the prior art of record does not disclose or make obvious the limitations “in a test phase, fault tests are carried out for the different units, and the results of the fault tests of each portion of the Z-K redundant units are stored in at most  $P=2^p$  distinct sets of storage means, selected by P address bits which form a subset of superset of the t address bits...and in a use phase aiming at the use of a given unit portions...”

Claim 6 is indicated to contain allowable subject matter because the prior art of record does not disclose or make obvious the limitations “a memory buffer including one or more

Art Unit: 2133

bidirectional shift registers having a first terminal and a second terminal for data input/output, the input data bits being divided into groups each comprised of bits of a second length which is  $1/2$  of the first length, the bidirectional shift register forming bit streams of the second length by sequentially receiving and shifting bits of odd-numbered groups among the divided groups via the first terminal and then sequentially outputting the formed bit streams via the first terminal; and forming bit streams of the second length by sequentially receiving and shifting bits of even-numbered groups among the divided groups via the second terminal and then sequentially outputting the formed bit streams via the second terminal; ”

Claims 15 and 35 are indicated to contain allowable subject matter because the prior art of record does not disclose or make obvious the limitations “a memory buffer including a second stage's bidirectional shift register having a third terminal and a fourth terminal for data input/output, the second stage's bidirectional shift register forming bit streams of the length by sequentially receiving and shifting bits sequentially output via the first terminal, via the third terminal, and then sequentially outputting the formed bit streams via the third terminal; and forming bit streams of the length by sequentially receiving and shifting bits sequentially output via the second terminal, via the fourth terminal, and then sequentially outputting the formed bit streams via the fourth terminal;”

Claim 26 is indicated to contain allowable subject matter because the prior art of record does not disclose or make obvious the limitations “dividing input data into groups the input data each comprised of bits of a second length which is  $1/2$  of the first length, at a memory buffer including one or more bidirectional shift registers having a first terminal and a second terminal for data input/output, the bidirectional shift register forming bit streams of the second length by

Art Unit: 2133

sequentially receiving and shifting bits of odd-numbered groups among the divided groups via the first terminal and then sequentially outputting the formed bit streams via the first terminal; and forming bit streams of the second length by sequentially receiving and shifting bits of even-numbered groups among the divided groups via the second terminal and then sequentially outputting the formed bit streams via the second terminal;”

Claims 7-14, 16-22, 27-34 and 36-42 are allowed by virtue of dependency.

***Conclusion***

4. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks, Washington, D.C. 20231

**or faxed to:** (703) 872-9306 for all formal communications.

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Fourth Floor (Receptionist).

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fritz Alphonse, whose telephone number is (571) 272-3813. The examiner can normally be reached on M-F, 8:30-6:00, Alt. Mondays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Albert De Cady, can be reached at (571) 272-3819.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-3824.

Information regarding the status of an application may also be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

Art Unit: 2133

applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Fritz Alphonse

Art Unit 2133

April 11, 2006



**GUY LAMARRE**  
**PRIMARY EXAMINER**